In the Claims

Please amend the claims as follows:

1. (Currently amended) A microelectronic apparatus having protection against high frequency crosstalk radiation, comprising:

a planar insulating substrate;

an active semiconductor electronic device located over a first region of said insulating substrate; ~~and~~

a doped semiconductor absorber located in a second region of said insulating substrate substantially surrounding said first region;

a second active semiconductor electronic device located over a third region of said insulating substrate, said third region being substantially separated from said first region by said second region; and

a dissipative conductor overlaying and adjacent to said doped semiconductor absorber;

wherein said semiconductor absorber and dissipative conductor are capable of dissipating crosstalk radiation having a center frequency within a range of between about 1 gigahertz and about 1,000 gigahertz.

2. (Cancelled)

3. (Previously presented) The microelectronic apparatus of claim 1, in which said doped semiconductor absorber fills a trench located in said second region.

4. (Cancelled)

5. (Cancelled)

6. (Currently amended) The microelectronic apparatus of claim 1, in which said doped semiconductor absorber comprises an n type semiconductor dopant.

7. (Currently amended) The microelectronic apparatus of ~~claim 4~~ claim 1, further comprising:

a dielectric passivation layer having a first surface overlaying said insulating substrate and having a second surface;

said dielectric passivation layer having a thickness extending between said first and second surfaces;

said dissipative conductor extending into said dielectric passivation layer.

8. (Currently amended) The microelectronic apparatus of ~~claim 4~~ claim 1, in which the dissipative conductor is a metal selected from the group consisting of nickel, chromium, palladium, platinum, and alloys thereof.

9. (Currently amended) The microelectronic apparatus of ~~claim 5~~ claim 1, in which said first and second active semiconductor electronic devices are selected from the group consisting of transistors, circuits, integrated circuits, diodes, and memory cells.

10. (Previously presented) The microelectronic apparatus of claim 7, in which said dissipative conductor fills a trench located in said dielectric passivation layer.

11. (Previously presented) The microelectronic apparatus of claim 7, in which said dissipative conductor extends from said first surface toward said second surface over at least about half of said thickness.

12. (Previously presented) The microelectronic apparatus of claim 7, further comprising:

metallic test probe contacts located at said second surface, said metallic test probe contacts making electrical connections with said active semiconductor electronic device.

13. (Previously presented) The microelectronic apparatus of claim 11, in which said dissipative conductor extends from said first surface to said second surface.

14. (Currently amended) A method of making a microelectronic apparatus having protection against high frequency crosstalk radiation, comprising the steps of:

providing a planar insulating substrate;

forming an active semiconductor electronic device located over a first region of said insulating substrate; ~~and~~

forming a doped semiconductor absorber located in a second region of said insulating substrate substantially surrounding said first region;

forming a second active semiconductor electronic device located over a third region of said insulating substrate, said third region being substantially separated from said first region by said second region; and

forming a dissipative conductor overlaying and adjacent to said doped semiconductor absorber;

wherein said semiconductor absorber and dissipative conductor are capable of dissipating crosstalk radiation having a center frequency within a range of between about 1 gigahertz and about 1,000 gigahertz.

15. (Currently amended) The method of claim 14, in which said doped semiconductor absorber is formed by the step of implanting dopant ions in a trench located in said second region.

16. (Cancelled)

17. (Cancelled)

18. (Previously presented) The method of ~~claim 16~~ claim 14, further comprising the step of:

forming a dielectric passivation layer having a first surface overlaying said insulating substrate and having a second surface;

said dielectric passivation layer having a thickness extending between said first and second surfaces;

said dissipative conductor extending into said dielectric passivation layer.

19. (Previously presented) The method of claim 18, in which said dissipative conductor is formed by the steps of:

providing a trench located in said dielectric passivation layer; and

filling a dissipative conductor into said trench.

20. (Previously presented) The method of claim 18, further comprising the step of:

forming metallic test probe contacts located at said second surface, said metallic test probe contacts making electrical connections with said active semiconductor electronic device.

21. (New) The microelectronic apparatus of claim 1, in which the dissipative conductor has a sheet resistance within a range of between about 10 ohms per square and about 500 ohms per square.

22. (New) The method of claim 14, comprising the step of forming a dissipative conductor having a sheet resistance within a range of between about 10 ohms per square and about 500 ohms per square.